GETINGE

GETINGE GROUP

# GETINGE AER RANGE
# A SAFER WAY TO REPROCESS ENDOSCOPES


Always with you

# ENDOSCOPE REPROCESSING – FAST AND ERROR-PROOF

As the use of endoscopes increases, so does the risk of infections linked to endoscope reprocessing.

This is indeed an area where “zero tolerance” towards cross-contamination must be maintained. And at Getinge, we are convinced that there’s only one way to do this.

**Think SYSTEM, not PRODUCT**

The Japanese word poka-yoke stands for a concept aiming at making errors impossible. When we designed our new range of AERs, Automated Endoscope Reprocessors, we applied poka-yoke thinking.

We built it into the product, and into the workflow around the products. We applied a system approach, in the way that we always do at Getinge – the way of thinking that has made us the world leader in disinfection and sterilisation.

The Getinge range of AERs consists of two “error-proofing” machines – the Getinge ED-FLOW AER and the Getinge POKA-YOKE AER. Both of them are unique. And both of them represent a breakthrough for a more all-embracing approach to infection control in endoscope reprocessing.


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# SAFER, FASTER, MORE VERSATILE AND EASIER TO USE

**Here are some of the main features and benefits:**

**The fastest and most efficient cycles.** No other AER can run such an extensive program conforming to national and international regulations, in such a short time – just 22* minutes!

**Hands-free operation,** both on loading and unloading sides, means that you do not have to touch any panels or buttons with dirty hands. Open the AER with the foot pedal, let the RFID choose the right cycle and the AER starts automatically.

**Optimum traceability** is built-in. Thanks to RFID tags, information on operators and endoscopes is automatically stored and printed along with the cycle data. And the Getinge software helps to manage all data.


**Unique handling of chemicals.** The Aperlan POKA-YOKE Agent A & Agent B disinfectant containers can only be placed in one way – the right one. The machine will also pierce and inject them, so there is no operator exposure whatsoever.


**Two separate chambers** – the Getinge ED-FLOW AER is the world's first true pass-through AER with two asynchronous chambers – so you can have a faster, smarter, more versatile and more efficient flow of flexible endoscopes through your reprocessing department.

**The pass-through design of the Getinge ED-FLOW AER** allows a true physical barrier between soiled and clean sides. Each chamber has two doors, one for loading and the other for unloading the endoscopes.


**The unique lid of the Getinge POKA-YOKE AER** lets you have a dirty-to-clean workflow even if your reprocessing room is small. This is important in reducing cross-contamination risks.

**To secure maximum infection control**, one must consider the whole workflow. That is why we offer not only an endoscope reprocessor, but a complete reprocessing system.

** 26 minutes when a second wash phase is required ( France)*


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# MODERN INFECTION CONTROL – THERE'S ALWAYS TWO SIDES TO IT

DIRTY SIDE

Modern infection control is based on the barrier principle, a clear separation of dirty and clean areas.

Both Getinge ED-FLOW AER and Getinge POKA YOKE AER offer such a separation – but in different ways.

**Getinge ED-FLOW AER – a true pass-through solution**

The Getinge ED-FLOW AER is a true barrier system, intended to be built in a wall in order to separate the dirty and the clean areas with a physical barrier. Interlocking doors ensure that only scopes that have run through a complete and approved cycle can be unloaded through the door on the clean side. If an error during the process is discovered, the AER will only open up on the dirty side.



The two-way lid design of the Getinge POKA-YOKE AER helps to separate dirty and clean areas, reducing the risk of cross-contamination

**Getinge POKA YOKE AER – a two-way lid solution**

In smaller endoscopy clinics, building the AER into a wall may not be a viable solution. The Getinge POKA-YOKE AER solves the problem by featuring a lid that allows loading and unloading from opposite sides. Manual pre-treatment is performed on the dirty side, drying and storage on the clean side. In this way, disinfected endoscopes never have to be handled in the same area as dirty ones.

# LOAD, START AND UNLOAD WITHOUT TOUCHING

Just open it with the pedal and let the radio-frequency sensor register the user and endoscope ID, and automatically launch the right cycle. Hands-free operation – it's smart, smooth and failsafe.


Infection control is about seeing the whole picture and, as far as possible, ensuring the risk of human errors is eliminated.

For example: how can you avoid the situation where a nurse touches a handle, panel, start-button or barcode reader after holding a dirty endoscope, leaving micro-organisms waiting to be picked up when unloading the clean endoscope?

The answer is: hands-free operation.

**The first part is basic: a foot pedal**

After the manual pre-cleaning, the operator presses the pedal to open the AER. No need to touch any handles or buttons.

After successful decontamination the door can only be opened with the pedal on the clean side.

**Then, the best part: RFID identification and automatic start**

When the operator has placed the endoscope into the AER, its RFID tag is automatically identified by the machine's RFID antenna (RFID = Radio-Frequency Identification). The operator also has a RFID tag for automatic user identification.

When the foot pedal is pressed, the AER will close the lid/door and automatically choose the right cycle for that endoscope, based on the RFID tag information, and start.


**Smooth, simple and failsafe**

This procedure has several benefits. Firstly, it is easy and saves time for the operator. No data to be entered, just load the endoscope and press the pedal.

Secondly, it reduces the risk of human errors. Only the correct cycle for that particular endoscope can be used. The AER cannot be started or unloaded without storing the correct user information.

Thirdly, it reduces the risk of cross-contamination. No buttons to touch to open or close the lid, select a cycle, enter user information, start the AER or unload the clean endoscope.

It couldn't be simpler – or safer.

# DATA CAPTURING AND TOTAL TRACEABILITY – TAKE COMMAND OF YOUR ENDOSCOPES

As a clinic or department using endoscopes, the responsibility is normally yours to ensure that important procedure data is captured and documented. Therefore, you'll need an AER with a fail-safe traceability system.

Ideally, an AER captures and stores data automatically and therefore eliminates risks of human error. With a Getinge AER you can select from two endoscope reprocessing solutions or a combination of the two depending on your requirements. T-DOC EndoCycle offers data capturing from Getinge AER machines while T-DOC EndoTrace gives you total traceability throughout the production cycle. With a combination of T-DOC EndoCycle and T-DOC EndoTrace you thus have the optimal solution to take command of your endoscopes.

An AER that helps you ensure traceability of your endoscopes and you can focus on providing quality care while spending less time on paperwork. Exactly what you get with an AER from Getinge.

**Data Capturing in the endoscope reprocessing unit**

With T-DOC EndoCycle you can document and capture essential process parameters such as endoscope ID, User ID, selected AER machine number, program type and detergent/disinfectant exposure.

T-DOC EndoCycle also provides first-level traceability by linking Patient ID and/or to the disinfection process. In this way, the history of your endoscopes is documented.

**Complete control of your endoscopes with total traceability**

T-DOC EndoTrace offers you enhanced endoscope reprocessing enabling you to handle all aspects of endoscope reprocessing management.

You are ensured total traceability as T-DOC registers endoscopes and button valves throughout their life-span and links them to all processes, actions and people they encounter. Thereby, you always have a documented record that the correct processes and procedures were followed. In addition, you always know where your endoscopes are when you need them.


**Automatic data collection with RFID tags**
Using RFID tags, both endoscope and operator are automatically identified, so the correct ID information is collected. The AER control system records cycle number, date, endoscope ID, type of cycle, user ID, cycle start and stop time.

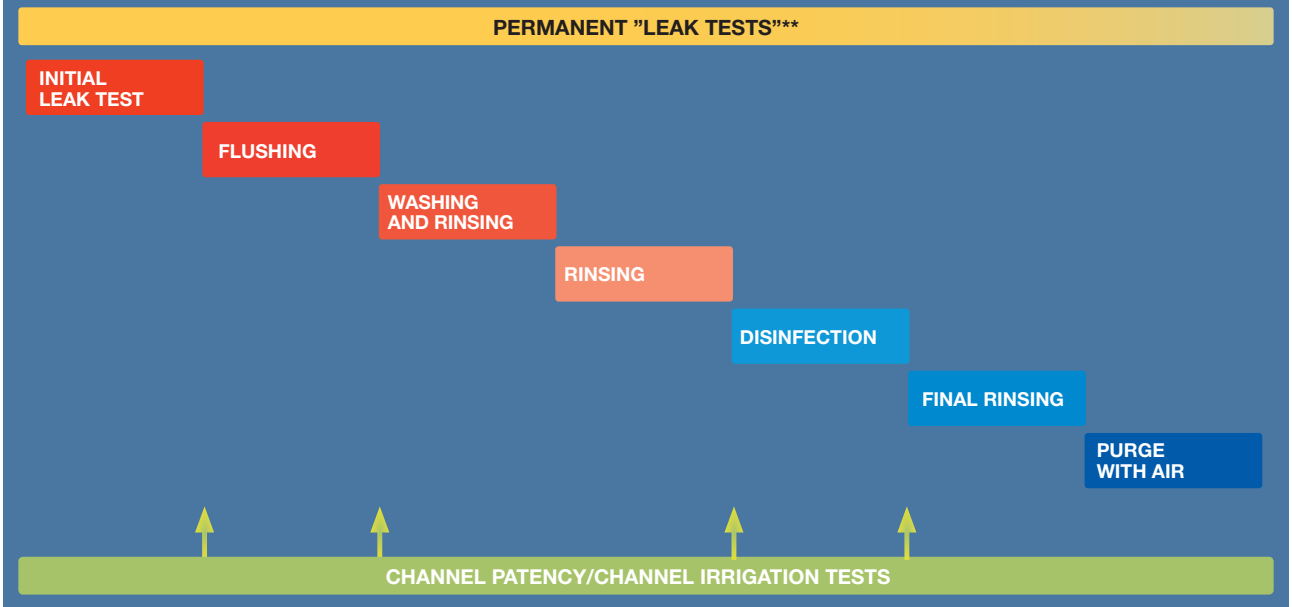
# AN EXTENSIVE PROGRAM COMPLETED IN ONLY 22 MINUTES*

The standard program for the Getinge AERs features continuous ”leak tests”**, four flow tests and three final rinses. It’s been designed to meet all regulations, including the ones in countries where demands have increased following the emergence of prion diseases.

No other machine can complete so many phases in such a short time. As a result, the Getinge AERs will complete a cycle, fully validated, in accordance with the EN ISO 15883-1 and EN ISO 15883-4 standards in only 22 minutes*. This means, for example, that the ED-FLOW will process as many as 6 scopes in just over an hour.

On top of this, you can save time thanks to the smart ergonomic design of the AERs. Loading scopes is very easy, and connecting them is really fast. All the time you have a good overview of the chamber, which contributes further to a smooth and simple workflow.

## STANDARD CYCLE DESCRIPTION




**Initial flush phase**
Removes any pretreatment chemical and removes gross contamination.

**Wash phase**
Ensures that all proteins are removed. Optional 2nd washing and rinsing phase can be programmed.

**Extensive rinses**
Every wash phase is followed by a rinse, plus an extra one – for complete removal of detergent before disinfection.

**Disinfection phase**
The standard program features a 5 minutes minimum contact time, performed at 37°C.

**Triple rinses**
The final rinse uses 0.1 µm filtered water to guarantee the disinfected status of the endoscope.

**Special program for clean endoscopes – saves time**
A shorter 14*** minutes disinfection cycle is available for processed endoscopes that have been stored too long to use without renewed reprocessing. To be used according to local regulations.

**Programmable thermal self-disinfection program**
The self-disinfection program uses thermal disinfection to reduce risk of contamination. By pre-setting the program for automatic start, you know that the AER is ready for use, for example in the morning when you arrive.

** 26 minutes when a second wash phase is required (France)*

*** Should the endoscope passes the automatic initial leak test, a continuous air overpressure is maintained to protect the endoscope’s internal components*

****14 minutes when only one chamber running. 16 minutes when 2 chambers running.*

# UNIQUE EXTRA SAFETY THANKS TO THE CHANNEL IRRIGATION SYSTEM

Endoscopes are not like other medical instruments. Disinfecting them is more complicated due to the complexity of the different internal channels.

How do you assure that these channels – the inside of which no one will ever see – have been completely high-level disinfected and are 100% safe to use on the next patient after each reprocessing cycle?

How can you be completely sure that each channel is 100% functional and that there is no obstruction due to bio-film build-up threatening the scope's perfomance?

There is only one way. The unique CVL system (Channel irrigation Verification Library), which measures each channel separately, and warns if there is the slightest deviation compared to predefined values.

This is something that other AERs do not offer. And it is priceless for those who appreciate peace of mind when it comes to patient safety.

**It works like this:**

1. The AER compares* the measured pressure to pre-defined values that have been determined through our partnership with the main manufacturers of endoscopes – in order to assure that the cleaning and disinfection of each channel is correctly performed.
2. During operation, the AER automatically compares the flow of each channel of each endoscope with the known reference values. If there is a deviation in the flow rate during the cycle, the AER notices it and warns the user by means of an alarm message.

**This way, you know that continuous safety is always assured.**
The CVL functions as a quality assurance, letting you feel confident that everything works as it should on a day-to-day basis.

**Normal pressure**
Everything works correctly and the flow is normal.

**High pressure – CVL warns**
The pressure is high but the flow through the channel is very low. Possible cause: obstruction (due to bio-film build-up or damage).

**Low pressure – CVL warns**
The pressure is very low, still the water and chemicals seems to flow totally unhindered. Possible cause: the endoscope is not connected.

**As decontamination in an AER is a terminal/final process prior to use on a patient, you have to be absolutely sure that the disinfection has been 100% successful. Thanks to the CVL system, you can rest assured.**

** CVL availability is dependent on the endoscope design*

# EASY TO USE WITH ALL* ENDOSCOPES – CONNECTOR DATABASE ON THE WEB

The Getinge Infection Control Group knows a thing or two about safe reprocessing. Being the world leader in disinfection and sterilisation, it is even tempting to claim that we know more about it than anyone.

So both you and the manufacturer of your endoscopes can rest assured – whatever the type or brand, a Getinge AER is tested to provide full compatibility and efficacy.

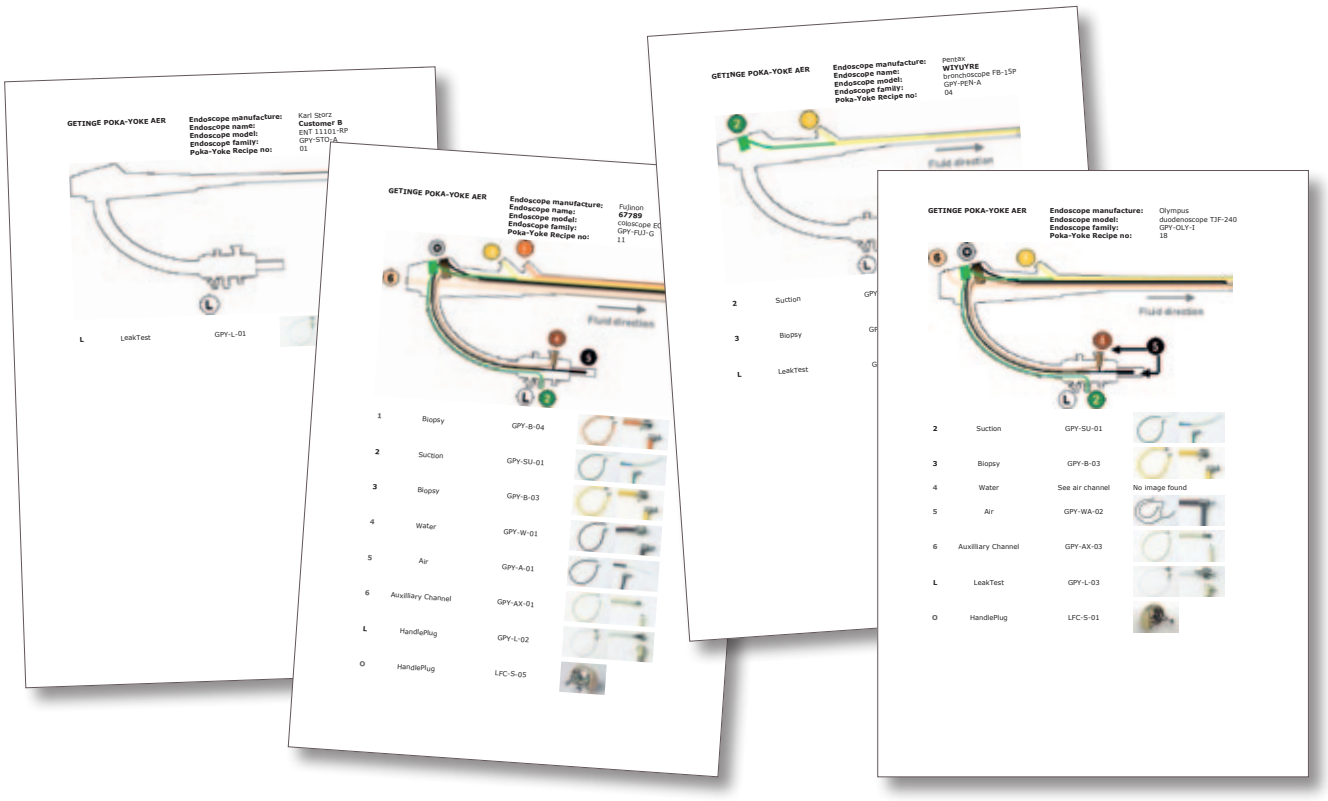
**Extensive testing of different endoscopes**

Both Getinge ED-FLOW AER and Getinge POKA-YOKE AER are developed for and extensively tested with different types and brands of flexible endoscopes. They handle scopes for, amongst others, upper and lower GI endoscopy, cystoscopy**, hysteroscopy**, bronchoscopy and rhinolaringoscopy.

** May vary from country to country.*
*** Tested according to local regulations.*

**Easy to connect any type of endoscopes previously identified**

The Getinge AERs identify the endoscope and display help for the operator on the screen. Also each tube for the connection of internal channels has a different colour to ease the connection. Customised and skillfully engineered endoscope connection kits are available for usual endoscope models.



The rotating nozzles deliver the washing, disinfection and rinse fluids at a high pressure in the chamber and on the exterior of the endoscope.

The endoscope is loaded into the Getinge ED-FLOW AER on a loading tray. You can prepare the endoscope on the tray on a work surface and then easily carry it over to the AER.

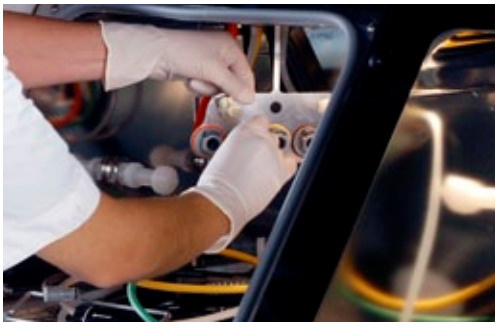
Every endoscope channel is individually connected to one of the six available snap-on connections, in order to clean and disinfect the internal channels of the endoscope.


The ED-FLOW AER features communication windows over each door, to allow visual contact between people on both sides.

A LED panel gives you information about the cycle status at a glance.

The interlocking doors of Getinge ED-FLOW AER and Getinge POKA-YOKE AER ensure that the endoscope cannot be unloaded on the clean side unless a complete process has been successfully carried out.

The POKA-YOKE AER features a unique design holder, that makes it easier to load the endoscope. By putting some space between the bottom of the chamber and the endoscope, the holder also ensures that the disinfectant comes in contact with all external surfaces of the scope.



It is very easy to connect the channels to the swinging-arm connections module of Getinge ED-FLOW AER. And when unloading from the other side, you just swing the module towards you for easy access to the connectors.

# A SAFER WAY TO HANDLE DETERGENTS – NO EXPOSURE AT ALL

We made our AERs extra easy to use in everyday work. And we've also simplified changing detergent and disinfectant containers.

We have made it easier – and much safer. We made it impossible to make errors – and minimised any exposure to chemicals.

**High-efficiency detergent**

Both Getinge ED-FLOW AER and Getinge POKA-YOKE AER use the detergent Getinge Poka-Yoke DLC, which is an alkaline type detergent with well-documented efficiency for protein and biofilm removal. The 3 litre containers last for 60 cycles.

**APERLAN for best disinfection efficacy**

The disinfectant used by both Getinge ED-FLOW AER and Getinge POKA-YOKE AER is the peracetic acid-based APERLAN POKA-YOKE, delivered in two separate 5 kg containers – Agent A and Agent B. The two agents are mixed inside of the machine and last for about 80 cycles. APERLAN POKA-YOKE Agent A & Agent B is used as single shot, i.e. it is not recycled/reused

**Disinfectant containers can only be placed in one way – the right way**

Since the bottles of Agent A and B have different shapes, they can only be positioned in the place allocated for them. No room for human errors.

**The containers do not have to be opened**

The bottles of Agent A and B are pierced inside the AER. This means that the operator will not be exposed to any possible health-hazardous chemicals. Safer for the operator and no chemical fumes in the reprocessing room.

**Warning when container levels are low**

The level of detergent and disinfectant is constantly monitored by the control system and can be displayed on the operator screen. The system warns if levels are low – no risk of running out of chemicals during a cycle.



The AERs feature a built-in storage space for the detergent and the disinfectant containers.

The large double door makes it easy to access the containers and replace them.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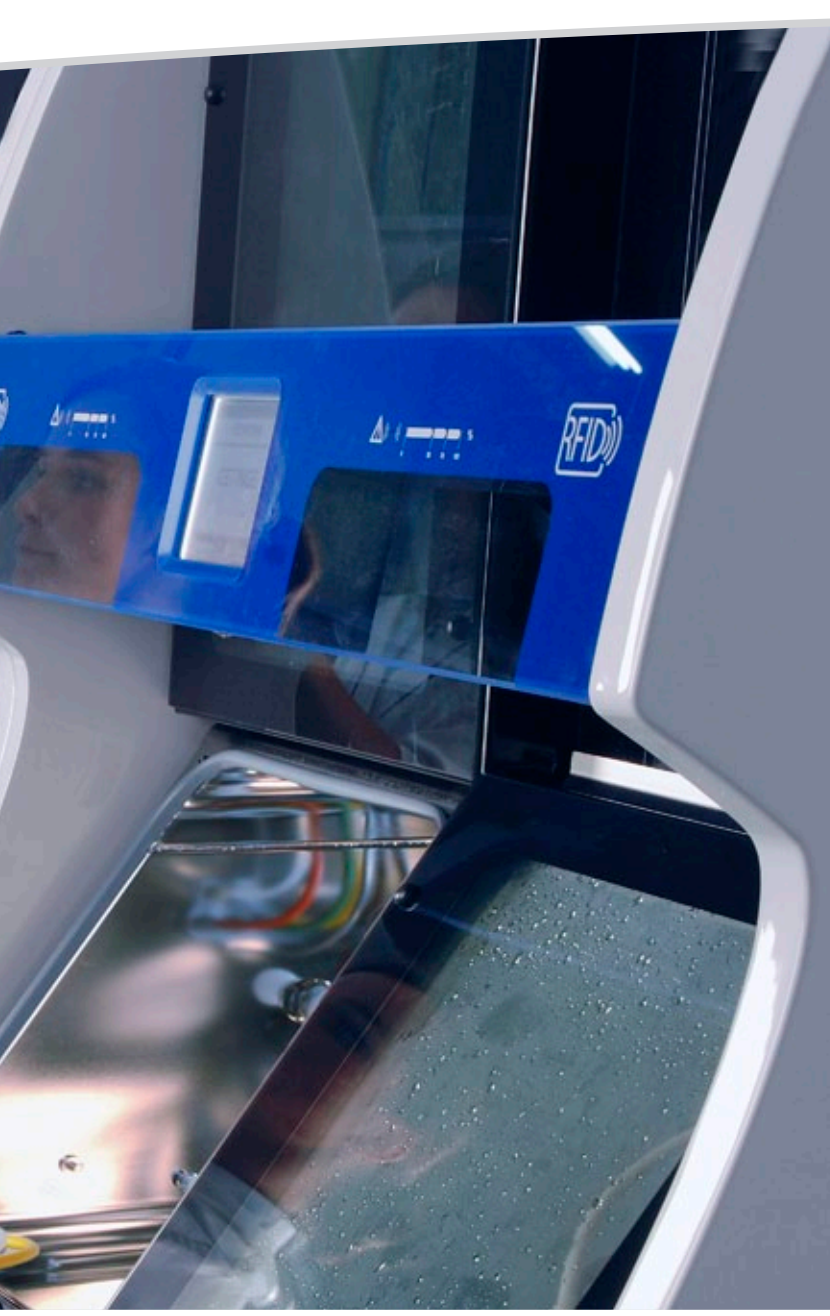
# GETINGE ED-FLOW – THE WORLD'S FIRST AER WITH TWO ASYNCHRONOUS CHAMBERS

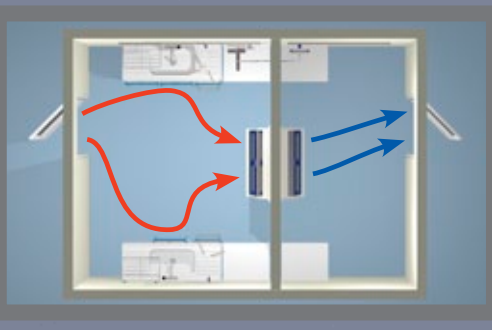
**Getinge ED-FLOW AER** is the perfect solution for larger endoscopy departments where you may have 10 endoscopes or more and perform high numbers of procedures. The ED-FLOW offers excellent capacity with its two separate chambers and short cycles, and for larger reprocessing departments, it is of course also possible to install several Getinge ED-FLOW AERs in a row.

With the world's first true pass-through AER with two separate asynchronous chambers you get a faster, more versatile and more efficient flow of flexible endoscopes through your reprocessing department. Into the bargain you get outstanding infection control and compliance with all the latest standards to give you peace of mind.

**Built into the wall**

Getinge ED-FLOW AER is a true pass-through solution – that is, the AER can be built into a wall to create a true physical barrier between soiled and clean sides. Loading and unloading in different rooms is definitely the preferred solution (wherever possible) in order to minimize the risk of cross-contamination.



Examples of positioning of Getinge ED-FLOW AER in reprocessing department layouts.

Endoscopes can be prepared on a tray on a work surface before being loaded into the AER. The same tray is then loaded inside the machine and can be used for transportation to the procedure room.

**Unique asynchronous chambers**

With double chambers operating independently, you get a better workflow and greater flexibility. Just load the soiled endoscope into one of the chambers as soon as it is ready for decontamination. When the next one arrives, you can load it directly into the second chamber without having to wait for the first endoscope's cycle to finish, and start the reprocessing. Unlike some other one-chamber AERs, you don't have to wait until you have two scopes to reprocess before launching the cycle.

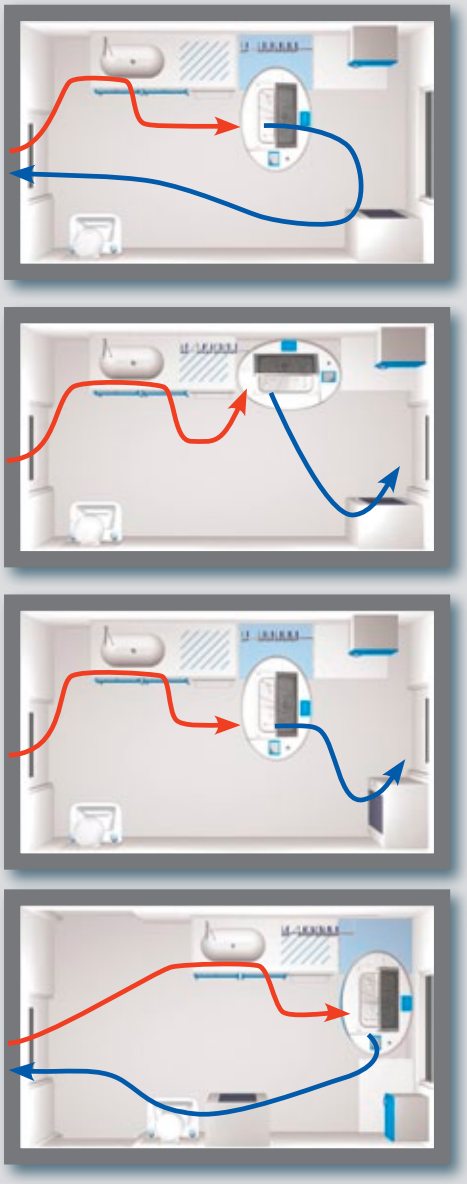
**System approach**

Getinge ED-FLOW AER has a very small footprint – a depth of only 40 cm on each side when fitted into a wall – and can be positioned in many ways in the reprocessing department. In order to ensure the best possible hygienic workflow, we have also developed a range of accessories to create a complete reprocessing system.

# GETINGE POKA–YOKE AER – A SYSTEM APPROACH OFFERING UNIQUE BENEFITS FOR SMALLER CLINICS

**Getinge POKA-YOKE AER** is the ideal solution for smaller endoscopy clinics. Here, there is often not enough space to build a machine into a wall in order to separate dirty and clean areas. Thanks to the smart lid, opening to the opposite side for unloading, the Getinge POKA-YOKE AER allows a soiled-to-clean workflow even in a small room.

**Manual pre-treatment in a dedicated part of the room**
After the initial manual cleaning and flushing of channels has been performed in the procedure room, the endoscope is brought into the reprocessing room. Here, there is a dedicated area for continued manual cleaning on one side of the Getinge POKA-YOKE. Equipment in this area includes sinks, spray guns, automated water tap, preparation area, shelf for brushes, waste bin etc.



There are various ways of positioning the Getinge POKA-YOKE in the reprocessing room

**The AER as a semi-divider of the room**

Ideally, the AER is placed away from the wall, by a special wall-mounted work bench to function as a semi-divider in the room. However, there are several options for positioning it, that enable a hygienic workflow – see examples on the right. Shelves for endoscope connectors and adaptors and a stand for a flipchart are examples of accessories that are conveniently close to the AER.

**Drying and storage on the clean side**

When the reprocessing cycle is completed, the endoscope is unloaded on the clean side.

In this area you need a storage cabinet for sterile goods, a printer for process data, a wall-mounted work bench for final assembly of the endoscope, and an endoscope storage cabinet. For details on all accessories, see the following pages.

# ACCESSORIES FOR THE BEST POSSIBLE WORKFLOW

Getinge offers everything you need to ensure the best possible hygienic workflow in your reprocessing department. From endoscope connector kits to furniture for a smooth workflow. Here are examples of accessories available. For more information, please visit www.getinge.com.

**1. Pre-treatment unit**
For manual pre-treatment of endoscopes before the process. Made of composite material.

**2. Chemical storage trolley**
For storage of 2+2 disinfectant containers and 3 DLC-detergent containers. The trolley is also lockable to the pre-treatment unit for safe storage.

**3. Waste trolley**
For general waste such as gloves, brushes etc, this trolley is positioned under the pre-treatment unit for easy access. Foot-pedal opening.

**4. U-shaped transfer table for the Getinge POKA-YOKE AER**
Helps to serve as a barrier between the dirty and clean sides. Follows the shape of the Getinge POKA-YOKE AER and is made of composite material.

**5. Wall rail**
Made of sturdy extruded aluminium, the wall-rail serves as a multi-purpose holder. Can be used to contain/ conceal wiring, cables etc.

**6. Chart holder**
Mounted on the wall-rail, the swivel chart holder keeps instruction leaflets close at hand (connection charts, user instructions, etc.).

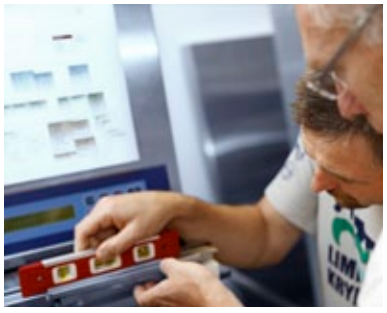
**7. Connector holder system**
Also mounted on the wall-rail, the connector holder transfers clean connectors back to the dirty side for storage and re-use. The connectors are safely and hygienically transferred in a practical disposable plastic bag.

**8. Printer holder***
The printer holder gives easy access to print-outs once the process is finished. Mounted on the wall-rail.

** Available for POKA-YOKE only*

**9. Clean table**
The clean table serves as a worktop for assembly of processed flexible endoscopes. Made of composite material.

# EASY INSTALLATION AND COST-SAVING SERVICE SOLUTIONS

The Getinge AERs are designed to be very easy to install and service. Putting them in place and connecting to water, drain and electricity is quick and easy.

When it comes to the Getinge POKA-YOKE AER, the choice of unloading mode can be made at installation, by selecting in the software either same-side unloading or opposite side unloading. This setting can also be easily changed later, for example if a new reprocessing room layout allows the dirty-to-clean workflow that was not possible at installation.

**All the training support you may need**

We offer* operator training to ensure that the AER can be optimally utilized to its full potential. To prevent breakdowns and minimize the risk of undesired downtime, training is also available for your technician at the unit. The training sessions can be held either at your facility or at the Lancer/Getinge Academy.

**Preventive maintenance and validation packages***

We also offer a range of preventive maintenance service contracts as well as validation and training packages which can be tailored to your own requirements:

- Installation to agreed services
- Commissioning
- Installation & Operational Testing (IOT) validation to the EN ISO 15883-1 and EN ISO 15883-4 standards
- Performance Qualification (PQ) validation testing to the EN ISO 15883-1 and EN ISO 15883-4 standards
- Servicing and service contracts
- Routine test to the EN ISO 15883-1 and EN ISO 15883-4 standards

** availability of services to be checked locally.*

# CONFORMS TO ALL* NORMS AND STANDARDS – AND THOROUGHLY TESTED IN EVERY WAY

Our Centre of Excellence for endoscope reprocessing in Toulouse, France.


BIOTECH-GERMANDE

*The results of the tests performed in BIOTECH-GERMANDE laboratory (Marseilles) and the data provided by the endoscope washer-disinfector manufacturer (see Getinge_Poka-Yoke_compil_data) confirm that*

*GETINGE POKA-YOKE AER (GETINGE) software version 1 using the DLC detergent and the APERLAN POKA-YOKE disinfectant*

*is consistent with all requirements of EN ISO 15883-1: 2006 and ISO/FDIS 15883-4: 2007.*

**Manufactured to the highest standards**

Thorough experience and well-established expertise are prerequisites for reliable production of AERs. The Getinge ED-FLOW AER and the Getinge POKA-YOKE AER are manufactured at our Centre of Excellence for endoscope reprocessing in Toulouse, France. This site has been manufacturing AERs as well as related accessories and equipment since 1993. A new assembly line for the AERs has been built according to lean manuacturing principles.

**Proven, scientifically tested technology**

The Getinge AERs include proven, scientifically tested technology on endoscope channel irrigation systems/ alarms, regulation and monitoring of cycle parameters, chemical combination efficacy/compatibility – and much more.

Getinge POKA-YOKE AER and Getinge ED-FLOW AER conform to the following norms amongst others:

- European Machine directive 2006142/EC and Medical Device directives 93/42/CE
- EN ISO 15883-1 standards
- EN ISO 15883-4 standards
- DGS 138, Guide CTIN 11/2003 (France).

**Endoscope compatibility testing**

An independent laboratory (endocopy specialist) conducted an extensive testing of endoscope compatibility, where endoscope materials and parts were exposed to the maximum dosing of disinfectant possible in the Getinge AERs and showed no deterioration.

**Endoscope connection**

We have developped** the appropriate connection kits for the main endoscopes of the major manufacturers. Our kit are certified MEDICAL DEVICE CLASS I.

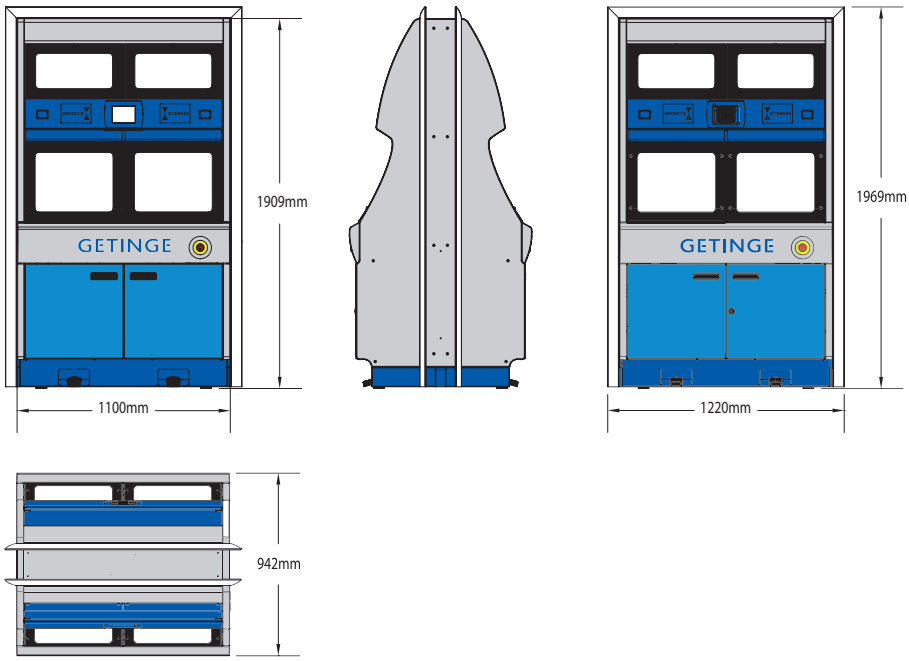
**Scientific efficacy testing**

These tests were also performed by an independent laboratory. The tests included:

- Biocidal activity of the APERLAN POKA-YOKE
- Bactericidal, fungicidal, mycobactericidal, virucidal, sporicidal according to EN or ISO standards on disinfectants
- Bactericidal and sporicidal activity of the disinfectant according to EN ISO 15883-4 standards
- Cleaning efficacy tests according to ISO 15883-4
- Endoscope disinfection cycle efficacy tests according to EN ISO 15883-4 standards
- Self disinfection cycle efficacy tests according to EN ISO 15883-4 standards (including water treatment unit)

** Applies to EN ISO 15883-1 & 15883-4, please check conformity to local requirements.*
*** Please contact your local getinge dealer to check availability of the required kit*

# TECHNICAL DATA
# GETINGE ED-FLOW AER




## GETINGE ED-FLOW AER:

### GENERAL FEATURES:

| | |
|---|---|
| Number of endoscopes: | 2 endoscopes in 2 separate chambers. |
| Glass doors, true pass-through for building into a wall | ✓ |
| Full compliance with EN ISO 15883-1 | ✓ |
| Full compliance with EN ISO 15883-4 | ✓ |

### SPRAYING & CVL SYSTEM

| | |
|---|---|
| 4 rotating nozzles 360° per chamber | ✓ |
| 6 internal channel connections, colour coded | ✓ |
| CVL system | ✓ |

### MACHINE DISINFECTION

| | |
|---|---|
| Thermal disinfection cycle | ✓ |
| Chemical self-disinfection | ✓ |

### ENDOSCOPE DISINFECTION CYCLES

| | |
|---|---|
| Permanent "leak tests" * | ✓ |
| Max number of channel irrigation tests during full cycle | 4 |
| Working temperature | 37°C |
| Automatic mixing of disinfectant inside machine | ✓ |
| Standard time of contact with disinfectant | 5 min |
| Adjustable final air blowing time | ✓ |

### CONSUMABLES

| | |
|---|---|
| Disinfectant Aperlan Poka-Yoke, Agent A | 5 kg box of 2 containers |
| Aperlan Poka-Yoke, Agent B | 5 kg box of 2 containers |
| Detergent Getinge Poka-Yoke DLC | 3 litres box of 4 containers |

### CONNECTION OF UTILITIES

| | |
|---|---|
| Electrical connections/consumption | 400V-3PH+N +/- 10% 16A/ph |
| Water supply | To national guidelines and requirements. Minimum softened water <7 DH. |
| Compressed air | 5 to 7 bars |
| Incoming water filter 0,1 µm | ✓ |
| Water consumption per cycle phase: | 3.25 litres |
| HEPA filter for incoming air | ✓ |
| Net weight | 397 kg |

### CONTROL/VALIDATION/TRACEABILITY

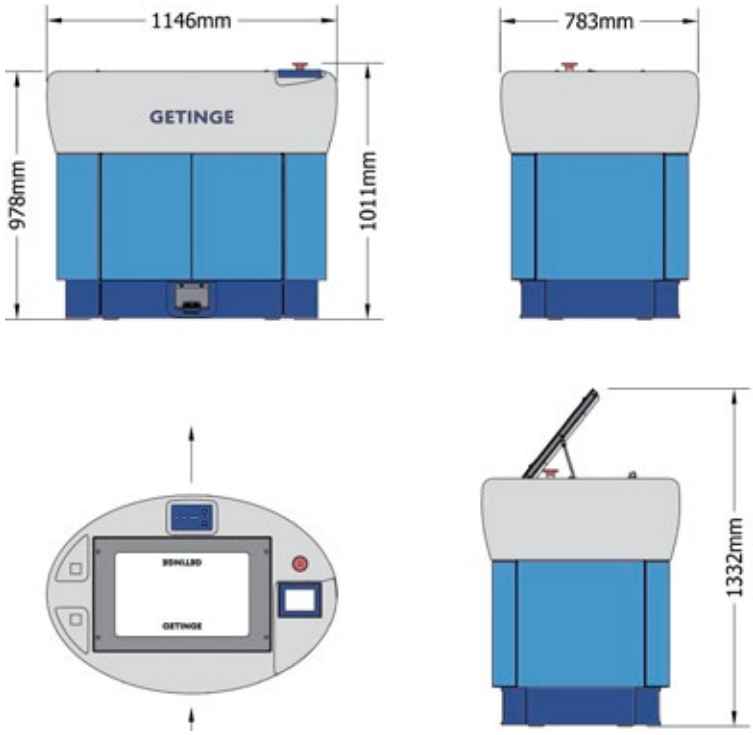
| | |
|---|---|
| Industrial PLC system (Programmable Logic Controller) | ✓ |
| Printer | ✓ |
| Program for identification of endoscopes and CVL identification | ✓ |
| RFID identification of endoscope | ✓ |
| RFID identification of user | ✓ |
| Automatic dosing of detergent | ✓ |
| Automatic dosing of disinfectant | ✓ |
| Independent cycle parameters monitoring system | ✓ |
| Cycle documentation system | ✓ |
| Ethernet, IP address | ✓ |

### INCLUDED FOC ON DELIVERY

| | |
|---|---|
| Endoscope RFID-tags | 3 pcs |
| User RFID-tags | 2 pcs |
| Machine disinfection-tag Ao 600 | ✓ |
| Machine disinfection-tag Ao 3000 | ✓ |
| Machine disinfection chemical | ✓ |
| User manual | ✓ |

** Should the endoscope pass the automatic initial leak test, a continuous air overpressure is maintained to protect the endoscope's internal components*

# TECHNICAL DATA
# GETINGE POKA-YOKE AER




## GETINGE POKA-YOKE AER:

| GENERAL FEATURES: | |
|---|---|
| Number of endoscopes: | 1 |
| Blue-tinted glass lid, can open to both sides | ✓ |
| Full compliance with EN ISO 15883-1 | ✓ |
| Full compliance with EN ISO 15883-4 | ✓ |

| SPRAYING- & CVL SYSTEM | |
|---|---|
| 4 rotating nozzles 360° | ✓ |
| 6 internal channel connections, colour coded | ✓ |
| CVL system | ✓ |

| MACHINE DISINFECTION | |
|---|---|
| Thermal disinfection cycle | ✓ |
| Chemical self-disinfection | ✓ |

| ENDOSCOPE DISINFECTION CYCLES | |
|---|---|
| Permanent "leak tests" * | ✓ |
| Max number of channel irrigation tests during full cycle | 4 |
| Working temperature | 37°C |
| Automatic mixing of disinfectant inside machine | ✓ |
| Standard time of contact with disinfectant | 5 min |
| Adjustable final air blowing time | ✓ |

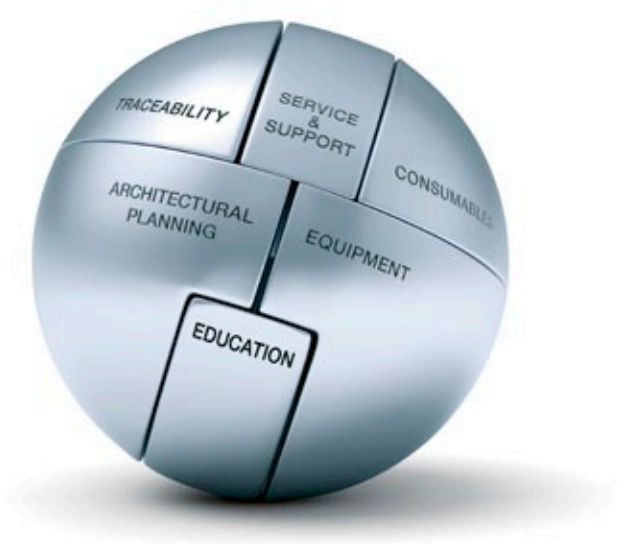
| CONSUMABLES | |
|---|---|
| Disinfectant Aperlan Poka-Yoke, Agent A | 5 kg box of 2 containers |
| Aperlan Poka-Yoke, Agent B | 5 kg box of 2 containers |
| Detergent Getinge Poka-Yoke DLC | 3 litres box of 4 containers |

| CONNECTION OF UTILITIES | |
|---|---|
| Electrical connections/consumption | 230V -1ph +/-10% 26A/ph<br>400V 3ph+n +/-10% 8A/ph |
| Water supply | To national guidelines and requirements. Minimum softened water <7 DH. |
| Incoming water filter 0,1 µm | ✓ |
| Water consumption per cycle phase: | 3.25 litres |
| HEPA filter for incoming air | ✓ |
| Net weight | 150 kgs |

| CONTROL/VALIDATION/TRACEABILITY | |
|---|---|
| Industrial PLC system (Programmable Logic Controller) | ✓ |
| Printer | ✓ |
| Program for identification of endoscopes and CVL identification | ✓ |
| RFID identification of endoscope | ✓ |
| RFID identification of user | ✓ |
| Automatic dosing of detergent | ✓ |
| Automatic dosing of disinfectant | ✓ |
| Independent cycle parameters monitoring system | ✓ |
| Cycle documentation system | ✓ |
| Ethernet, IP address for Remote | ✓ |

| INCLUDED FOC ON DELIVERY | |
|---|---|
| Endoscope RFID-tags | 3 pcs |
| User RFID-tags | 2 pcs |
| Machine disinfection-tag Ao 600 | ✓ |
| Machine disinfection-tag Ao 3000 | ✓ |
| Machine disinfection chemical | ✓ |
| User manual | ✓ |

** Should the endoscope passes the automatic initial leak test, a continuous air overpressure is maintained to protect the endoscope's internal components.*




**COMPLETE SOLUTIONS FOR INFECTION CONTROL**

Getinge is the world's leading provider of solutions for effective cleaning, disinfection and sterilization in the healthcare and life science sectors. We are dedicated to helping our customers provide better care at a lower cost. We do this by offering well-thought-through and customized solutions. This means that we are with our customers all the way from architectural planning and education to traceability and support – with complete solutions, long-term commitment and global presence. Getinge – Always with you.

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